

IN THE CLAIMS:

Please amend Claims 1 to 4, 8 to 15 and 19 to 45, and add new Claims 47 and 48 as shown below. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) A structure ~~having pores~~ comprising:

a substrate;

a plurality of electroconductive layers formed on a surface of the substrate;

a layer containing aluminum oxide covering the plurality of electroconductive layers and ~~the a~~ surface of the substrate where no electroconductive layer is formed; and

a plurality of pores formed in the layer containing aluminum ~~oxide; oxide,~~

wherein the plurality of pores is disposed above the plurality of electroconductive layers and the surface of the substrate where no electroconductive layer is formed, with a part of the layer containing aluminum oxide provided under the plurality of ~~pores; pores,~~

wherein the layer containing aluminum oxide provided between the bottom of the pores disposed above the electroconductive layer and the electroconductive layer comprises a material forming the electroconductive ~~layer; layer,~~ and

wherein a material different from aluminum oxide is filled in at least one pore disposed above the electroconductive layer, and another material different from aluminum oxide is filled in at least one pore disposed above the surface of the substrate where no electroconductive layer is formed.

2. (Currently Amended) A structure ~~having pores~~ according to claim 1, wherein the electroconductive layer comprises at least one element selected from the group consisting of Ti, Zr, Hf, Nb, Ta, Mo, and W.

3. (Currently Amended) A structure ~~having pores~~ according to either one of ~~claims 1 and 2~~ claim 1, wherein the substrate comprises an insulating material.

4. (Currently Amended) A structure ~~having pores~~ according to either one of claims 1 and 2 claim 1, wherein the substrate comprises an electroconductive substrate and a film composed of an insulating material provided on a surface of the electroconductive substrate.

5 to 7. (Cancelled)

8. (Currently Amended) A structure ~~having pores~~ according to claim 1, wherein the material filled in at least one pore disposed above the electroconductive layer is in electrical contact with the electroconductive layer.

9. (Currently Amended) A structure ~~having pores~~ according to either one of claims 1 and 8 claim 1, wherein the material filled in at least one pore disposed above the electroconductive layer is an electroconductive material.

10. (Currently Amended) A structure ~~having pores~~ according to claim 1, wherein the material filled in at least one pore disposed above the electroconductive layer is a magnetic material.

11. (Withdrawn, Currently Amended) A structure ~~having pores~~ according to claim 1, wherein the material filled in at least one pore disposed above the electroconductive layer has a light-emitting function.

12. (Currently Amended) A structure ~~having pores~~ comprising:
a substrate;
an electroconductive layer formed on a surface of the substrate, wherein the electroconductive layer is patterned;
a layer containing aluminum oxide covering the electroconductive layer and a surface of the substrate where no electroconductive layer is formed; and

a plurality of pores formed in the layer containing aluminum oxide,
wherein the plurality of pores is disposed above the electroconductive layer and
the surface of the substrate where no electroconductive layer is formed,

wherein an electroconductive path is provided between the electroconductive
layer and the bottom of the pores disposed above the electroconductive layer,

wherein a part of the layer containing aluminum oxide is provided under the
plurality of pores,

wherein the layer containing aluminum oxide provided between the
electroconductive layer and the bottom of the pores disposed above the electroconductive layer
comprises a material forming the electroconductive layer, and

wherein a material different from aluminum oxide is filled in at least one pore
disposed above the electroconductive layer, and another material different from aluminum oxide
is filled in at least one pore disposed above the surface of the substrate where no
electroconductive layer is formed.

13. (Currently Amended) A structure having pores according to claim 12,
wherein the electroconductive layer comprises at least one element selected from the group
consisting of Ti, Zr, Hf, Nb, Ta, Mo, and W.

14. (Currently Amended) A structure having pores according to ~~either one of~~
~~claims 12 and 13~~ claim 12, wherein the substrate comprises an insulating material.

15. (Currently Amended) A structure having pores according to ~~either one of~~
~~claims 12 and 13~~ claim 12, wherein the substrate comprises an electroconductive substrate and a
film composed of an insulating material provided on a surface of the electroconductive substrate.

16 to 18. (Cancelled)

19. (Currently Amended) A structure ~~having pores~~ according to any one of claim 12, wherein the material filled in at least one pore disposed above the electroconductive layer is in electrical contact with the electroconductive layer.

20. (Currently Amended) A structure ~~having pores~~ according to claim 12, wherein the material filled in at least one pore disposed above the electroconductive layer is an electroconductive material.

21. (Currently Amended) A structure ~~having pores~~ according to claim 12, wherein the material filled in at least one pore disposed above the electroconductive layer is a magnetic material.

22. (Withdrawn, Currently Amended) A structure ~~having pores~~ according to claim 12, wherein the material filled in at least one pore disposed above the electroconductive layer has a light-emitting function.

23. (Withdrawn, Currently Amended) An electron-emitting device comprising a structure ~~having pores~~ according to claim 12, wherein the material filled in at least one pore disposed above the electroconductive layer is an electron-emitting material.

24. (Currently Amended) A magnetic device comprising a ~~structure having pores~~ structure according to claim 12, wherein the material filled in at least one pore disposed above the electroconductive layer is a magnetic material.

25. (Withdrawn, Currently Amended) A light-emitting device comprising a structure ~~having pores~~ according to claim 12, wherein the material filled in at least one pore disposed above the electroconductive layer is a light-emitting material.

26. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores comprising the steps of:

preparing a substrate;

forming a plurality of electroconductive layers each composed of at least one element selected from the group consisting of Ti, Zr, Hf, Nb, Ta, Mo, and W on a part of a surface of the substrate;

forming a film containing aluminum so as to cover the plurality of electroconductive layers and a surface of the substrate having no electroconductive layer thereon;

anodizing the film containing aluminum so as to form a layer containing aluminum oxide having a plurality of pores; and

filling a material different from aluminum oxide in at least one pore disposed above the electroconductive layer, and filling another material different from aluminum oxide above the surface of the substrate having no electroconductive layer thereon,

wherein the plurality of pores is formed above the electroconductive layer and the surface of the substrate having no electroconductive layer thereon,

wherein a part of the layer containing aluminum oxide is provided under the plurality of pores, and

wherein a material forming the electroconductive layer is diffused to a part of the layer containing aluminum oxide provided between the electroconductive layer and the bottom of the pores above the electroconductive layer.

27. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 26, wherein the substrate comprises an insulating material.

28. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 26, wherein the substrate comprises an electroconductive substrate and a film composed of an insulating material provided on the electroconductive substrate.

29. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 26, wherein the electroconductive layer is an electroconductive film formed on the surface of the substrate, and the film containing aluminum is formed so that the thickness thereof is not less than two times the thickness of the electroconductive layer.

30. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 26, wherein the electroconductive layer is an electroconductive film formed on the surface of the substrate, and the film containing aluminum is formed so that the thickness thereof is not less than five times the thickness of the electroconductive layer.

31. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 26, wherein the electroconductive layer is an electroconductive film formed on the surface of the substrate, and the film containing aluminum is formed so that the thickness thereof is not less than ten times the thickness of the electroconductive layer.

32. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 26, further comprising a step of increasing the diameter of the pores by etching after the anodizing step.

33. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 26, further comprising a step, prior to the anodizing step, of forming a recess on a surface of the film containing aluminum disposed so as to cover the plurality of electroconductive layers and the surface of the substrate having no electroconductive layer thereon.

34. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 26, wherein the material filled in at least one pore disposed above the electroconductive layer is deposited selectively by applying a voltage thereto in a

solution, and wherein the material filled in at least one pore disposed above the electroconductive layer is ionized in the solution.

35. (Withdrawn, Currently Amended) A method for manufacturing a structure ~~having pores~~ according to claim 34, wherein the voltage applied to the electroconductive layer is an alternating voltage or a pulse voltage.

36. (Withdrawn, Currently Amended) A method for manufacturing a structure ~~having pores~~ comprising the steps of:

preparing a substrate;

forming a patterned electroconductive layer composed of at least one element selected from the group consisting of Ti, Zr, Hf, Nb, Ta, Mo, and W on a part of a surface of the substrate;

forming a film containing aluminum so as to cover the electroconductive layer and a surface of the substrate having no electroconductive layer thereon;

anodizing the film containing aluminum so as to form a layer containing aluminum oxide having a plurality of pores; and

filling a material different from aluminum oxide in at least one pore disposed above the electroconductive layer, and filling another material different from aluminum oxide above the surface of the substrate having no electroconductive layer thereon,

wherein the plurality of pores is formed above the electroconductive layer and the surface of the substrate having no electroconductive layer thereon,

wherein a part of the layer containing aluminum oxide is provided under the plurality of pores, and

wherein a material forming the electroconductive layer is diffused to a part of the layer containing aluminum oxide provided between the electroconductive layer and the bottom of the pores above the electroconductive layer.

37. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 36, wherein the substrate comprises an insulating material.

38. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 36, wherein the substrate comprises an electroconductive substrate and a film composed of an insulating material provided on the electroconductive substrate.

39. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 36, wherein the electroconductive layer is an electroconductive film formed on the surface of the substrate, and the film containing aluminum is formed so that the thickness thereof is not less than two times the thickness of the electroconductive layer.

40. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 36, wherein the electroconductive layer is an electroconductive film formed on the surface of the substrate, and the film containing aluminum is formed so that the thickness thereof is not less than five times the thickness of the electroconductive layer.

41. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 36, wherein the electroconductive layer is an electroconductive film formed on the surface of the substrate, and the film containing aluminum is formed so that the thickness thereof is not less than ten times the thickness of the electroconductive layer.

42. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 36, further comprising a step of increasing the diameter of the pores by etching after the anodizing step.

43. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 36, further comprising a step, prior to the anodizing step, of forming a recess on a surface of the film containing aluminum disposed so as to cover the electroconductive layer and the surface of the substrate having no electroconductive layer thereon.

44. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 36, wherein the material filled in at least one pore disposed above the electroconductive layer is deposited selectively by applying a voltage thereto in a solution, and wherein the material filled in at least one pore disposed above the electroconductive layer is ionized in the solution.

45. (Withdrawn, Currently Amended) A method for manufacturing a structure having pores according to claim 44, wherein the voltage applied to the electroconductive layer is an alternating voltage or a pulse voltage.

46. (Cancelled).

47. (New) A structure comprising:
a substrate;
a plurality of electroconductive layers formed partially on a surface of the substrate; and

a layer having a plurality of columnar parts formed on a surface of the substrate where no electroconductive layer is formed and on the plurality of electroconductive layers, wherein at least one columnar part is disposed above one of the plurality of electroconductive layers, and at least one columnar part is disposed above the surface of the substrate where no electroconductive layer is formed, and

wherein the columnar part disposed above the electroconductive layer comprises a material different from a material comprised by the columnar part disposed above the surface of the substrate where no electroconductive layer is formed.

48. (New) A structure comprising:
a substrate;
a plurality of electroconductive layers formed partially on a surface of the substrate; and

a layer having a plurality of columnar parts formed on a surface of the substrate where no electroconductive layer is formed and on the plurality of electroconductive layers,

wherein at least one columnar part is disposed above one electroconductive layer, and at least one columnar part is disposed above another electroconductive layer, and

wherein the columnar part disposed above the one electroconductive layer comprises a material different from a material comprised by the columnar part disposed above the other electroconductive layer.